

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/574,194  
Source: IFWP  
Date Processed by STIC: 4/13/06

***ENTERED***



IFWP

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION:** US/10/574,194

**DATE:** 04/13/2006  
**TIME:** 10:04:16

**Input Set :** A:\07917-259US1.txt  
**Output Set:** N:\CRF4\04132006\J574194.raw

4 <110> APPLICANT: Urano, Fumihiko  
 7 <120> TITLE OF INVENTION: METHODS FOR DIAGNOSING AND TREATING  
 8 ENDOPLASMIC RETICULUM (ER) STRESS DISEASES  
 11 <130> FILE REFERENCE: 07917-259US1  
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/574,194  
 C--> 13 <141> CURRENT FILING DATE: 2006-03-28  
 13 <150> PRIOR APPLICATION NUMBER: PCT/US2004/033516  
 14 <151> PRIOR FILING DATE: 2004-10-12  
 16 <150> PRIOR APPLICATION NUMBER: US 60/510,262  
 17 <151> PRIOR FILING DATE: 2003-10-09  
 19 <150> PRIOR APPLICATION NUMBER: US 60/519,736  
 20 <151> PRIOR FILING DATE: 2003-11-12  
 22 <150> PRIOR APPLICATION NUMBER: US 60/568,468  
 23 <151> PRIOR FILING DATE: 2004-05-05  
 26 <160> NUMBER OF SEQ ID NOS: 41  
 28 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 30 <210> SEQ ID NO: 1  
 31 <211> LENGTH: 1761  
 32 <212> TYPE: DNA  
 33 <213> ORGANISM: Homo sapiens  
 35 <400> SEQUENCE: 1  
 36 ctcgagctat ggtgggttg gcagccgcgc cgaaccggc cgacgggacc cctaaagttc 60  
 37 tgcttctgtc ggggcagccc gcctccgccc ccggagcccc ggccggccag gcccgtccgc 120  
 38 tcatggtgcc agccccagaga ggggccagcc cggaggcagc gagcgggggg ctgccccagg 180  
 39 cgcgcagcg acagcgccctc acgcaccta gccccgagga gaaggcgctg aggagggaaac 240  
 40 taaaaaacag agtagcagct cagactgcca gagatcgaaa gaaggctcga atgagtgagc 300  
 41 tggAACAGCA agtggtagat tttagaagaag agaaccaaaa acttttgcta gaaaatcagc 360  
 42 tttagcaga gaaaactcat ggctttagt ttgagaacca ggagttaaa cagcgtttgg 420  
 43 ggatggatgc cctgggtgct gaagaggagg cggaaGCCAA gggaatgaa gtgaggccag 480  
 44 tggccgggtc tgctgagtcc gcagcaggtg caggcccagt tgcacccct ccagaacatc 540  
 45 tccccatgga ttctggcggt attgactctt cagattcaga gtctgataat ctgttggca 600  
 46 ttctggacaa cttggaccca gtcatgttct tcaaattgccc ttcccccagag cctggccagcc 660  
 47 tggaggagct cccagaggc tacccagaag gacccagttc cttaccagcc tccctttctc 720  
 48 tgcagtggg gacgtcatca gcacagctgg aagccattaa tgaactaatt cgtttgacc 780  
 49 acatatatac caagccccca gtcttagaga taccctctga gacagagagc caagctaatg 840  
 50 tggtagtcaa aatcgagggaa gcacctctca gcccctcaga gaatgatcac cctgaattca 900  
 51 ttgtctcagt gaaggaagaa cctgtagaag atgacctcgt tccggagctg ggtatctcaa 960  
 52 atctgcttc atccagccac tggccaaagc catcttcctg cttactggat gcttacagt 1020  
 53 actgtggata cgggggttcc cttcccccatt tcagtgacat gtcctctctg cttgggttaa 1080  
 54 accattcttg ggaggacact ttggcaatg aactcttcc ccagctgatt agtgtctaa 1140  
 55 gaatgatcca atactgttgc cttttccctt gactattaca ctgcctggag gatagcagag 1200  
 56 aacccgtct gtacttcatt caaaaagcca aaatagagag tatacagtcc tagagaattc 1260  
 57 ctctatttgt tcagatctca tagatgaccc ccaggtattg tctttgaca tccagcagtc 1320

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION:** US/10/574,194

**DATE:** 04/13/2006  
**TIME:** 10:04:16

**Input Set : A:\07917-259US1.txt**  
**Output Set: N:\CRF4\04132006\J574194.raw**

58	caaggtattg	agacatatta	ctggaagtaa	gaaatattac	tataatttag	aactacagct	1380									
59	tttaagattg	tacttttac	ttaaaagggt	ggtagtttc	cctaaaatac	ttattatgt	1440									
60	aggtcatta	gacaaatgtc	ttgaagtaga	catggattt	atgaatggtt	ctttatcatt	1500									
61	tctttcccc	cttttgca	tcctggctt	cctccagttt	tagtgcctt	agtttgcttc	1560									
62	tgtaagcaac	gggaacacct	gctgaggggg	ctcttccct	catgtatact	tcaagtaaga	1620									
63	tcaagaatct	tttgtgaaat	tatagaaatt	tactatgtaa	atgcttgatg	gaatttttc	1680									
64	ctgctagtgt	agcttctgaa	aggtgcttcc	tccatttatt	taaaactacc	catgcaatta	1740									
65	aaaggccttc	gtggcctcga	g				1761									
67	<210>	SEQ ID NO:	2													
68	<211>	LENGTH:	376													
69	<212>	TYPE:	PRT													
70	<213>	ORGANISM:	Homo sapiens													
72	<400>	SEQUENCE:	2													
73	Met	Val	Val	Ala	Ala	Ala	Pro	Asn	Pro	Ala	Asp	Gly	Thr	Pro	Lys	
74	1			5			10							15		
75	Val	Leu	Leu	Leu	Ser	Gly	Gln	Pro	Ala	Ser	Ala	Ala	Gly	Ala	Pro	Ala
76				20			25							30		
77	Gly	Gln	Ala	Leu	Pro	Leu	Met	Val	Pro	Ala	Gln	Arg	Gly	Ala	Ser	Pro
78				35			40							45		
79	Glu	Ala	Ala	Ser	Gly	Gly	Leu	Pro	Gln	Ala	Arg	Lys	Arg	Gln	Arg	Leu
80				50			55							60		
81	Thr	His	Leu	Ser	Pro	Glu	Glu	Lys	Ala	Leu	Arg	Arg	Lys	Leu	Lys	Asn
82	65				70			75						80		
83	Arg	Val	Ala	Ala	Gln	Thr	Ala	Arg	Asp	Arg	Lys	Lys	Ala	Arg	Met	Ser
84				85			90							95		
85	Glu	Leu	Glu	Gln	Gln	Val	Val	Asp	Leu	Glu	Glu	Asn	Gln	Lys	Leu	
86				100			105							110		
87	Leu	Leu	Glu	Asn	Gln	Leu	Leu	Arg	Glu	Lys	Thr	His	Gly	Leu	Val	Val
88				115			120							125		
89	Glu	Asn	Gln	Glu	Leu	Arg	Gln	Arg	Leu	Gly	Met	Asp	Ala	Leu	Val	Ala
90				130			135							140		
91	Glu	Glu	Ala	Glu	Ala	Lys	Gly	Asn	Glu	Val	Arg	Pro	Val	Ala	Gly	
92	145				150			155						160		
93	Ser	Ala	Glu	Ser	Ala	Ala	Gly	Ala	Gly	Pro	Val	Val	Thr	Pro	Pro	Glu
94				165			170							175		
95	His	Leu	Pro	Met	Asp	Ser	Gly	Gly	Ile	Asp	Ser	Ser	Asp	Ser	Glu	Ser
96				180			185							190		
97	Asp	Ile	Leu	Leu	Gly	Ile	Leu	Asp	Asn	Leu	Asp	Pro	Val	Met	Phe	Phe
98				195			200							205		
99	Lys	Cys	Pro	Ser	Pro	Glu	Pro	Ala	Ser	Leu	Glu	Glu	Leu	Pro	Glu	Val
100		210			215			220								
101	Tyr	Pro	Glu	Gly	Pro	Ser	Ser	Leu	Pro	Ala	Ser	Leu	Ser	Leu	Ser	Val
102	225				230			235							240	
103	Gly	Thr	Ser	Ser	Ala	Lys	Leu	Glu	Ala	Ile	Asn	Glu	Leu	Ile	Arg	Phe
104				245			250							255		
105	Asp	His	Ile	Tyr	Thr	Lys	Pro	Leu	Val	Leu	Glu	Ile	Pro	Ser	Glu	Thr
106				260			265							270		
107	Glu	Ser	Gln	Ala	Asn	Val	Val	Val	Lys	Ile	Glu	Glu	Ala	Pro	Leu	Ser
108				275			280							285		

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/574,194

DATE: 04/13/2006

TIME: 10:04:16

Input Set : A:\07917-259US1.txt

Output Set: N:\CRF4\04132006\J574194.raw

109 Pro Ser Glu Asn Asp His Pro Glu Phe Ile Val Ser Val Lys Glu Glu  
 110 290 295 300  
 111 Pro Val Glu Asp Asp Leu Val Pro Glu Leu Gly Ile Ser Asn Leu Leu  
 112 305 310 315 320  
 113 Ser Ser Ser His Cys Pro Lys Pro Ser Ser Cys Leu Leu Asp Ala Tyr  
 114 325 330 335  
 115 Ser Asp Cys Gly Tyr Gly Ser Leu Ser Pro Phe Ser Asp Met Ser  
 116 340 345 350  
 117 Ser Leu Leu Gly Val Asn His Ser Trp Glu Asp Thr Phe Ala Asn Glu  
 118 355 360 365  
 119 Leu Phe Pro Gln Leu Ile Ser Val  
 120 370 375  
 122 <210> SEQ ID NO: 3  
 123 <211> LENGTH: 1787  
 124 <212> TYPE: DNA  
 125 <213> ORGANISM: Homo sapiens  
 127 <400> SEQUENCE: 3  
 128 ctcgagctat ggtgggttg gcagccgcgc cgaacccggc cgacgggacc cctaaagtcc 60  
 129 tgcttctgtc ggggcagccc gcctccgcgc ccggagcccc ggccggccag gccctgcgc 120  
 130 tcatggtgcc agcccagaga ggggccagcc cggaggcagc gagcgggggg ctggcccagg 180  
 131 cgcgcagcg acagcgcctc acgcacactg gccccgagga gaaggcgtg aggaggaaac 240  
 132 tggaaaaacag agtagcagct cagactgcca gagatcgaaa gaaggctcga atgagtgagc 300  
 133 tggAACAGCA AGTGGTAGAT TTGAAAGAAG AGAACCAAAA ACTTTGCTA GAAAATCAGC 360  
 134 ttttacgaga gaaaactcat ggcctttag ttgagaacca ggagtaaga cagcgcttgg 420  
 135 ggatggatgc cctgggtgct gaagaggagg cggaaGCCAA ggggaatgaa gtgaggccag 480  
 136 tggccgggtc tgctgagtcc gcagcactca gactacgtgc acctctgcag caggtgcagg 540  
 137 cccagttgtc accccctccag aacatctccc catggattct ggcgttattt actcttcaga 600  
 138 ttccagagtct gatatcctgt tggcattct ggacaacttg gacccagtca tttttttcaa 660  
 139 atgccttc ccagagcctg ccagcctgaa ggagctccca gaggtctacc cagaaggacc 720  
 140 cagtcccta ccagcctccc tttctctgtc agtggggacg tcatacgcca agctggaaagc 780  
 141 cattaatgaa ctaattcggtt ttgaccacat atataccaag cccctagtct tagagatacc 840  
 142 ctctgagaca gagagccaag ctaatgttgt agtggaaatc gaggaagcac ctctcagccc 900  
 143 ctccagagaat gatcaccctg aattcattgt ctcagtgaa gaagaacctg tagaagatga 960  
 144 cctcggtcccg gagctggta tctcaaatct gcttcatcc agccactgcc caaaggccatc 1020  
 145 ttccctgccta ctggatgtttt acagtgcactg tggatacggg gttcccttt cccattcag 1080  
 146 tgacatgtcc tctctgtttt gtgttaaaccat ttcttggag gacactttt ccaatgaact 1140  
 147 cttcccccag ctgatttagt tctaaggaaat gatccaatac ttttgcctt ttcccttgact 1200  
 148 attacactgc ctggaggata gcagagaagc ctgtctgtac ttcatcaaa aagccaaaat 1260  
 149 agagagtata cagtccatgaa gaattccctt atttgtttagt atctcataga tgaccccccag 1320  
 150 gtattgtctt ttgacatcca gcagtc当地 gatattgagac atattactgg aagtaagaaa 1380  
 151 tattactata attgagaact acagcttttta agattgtact tttatcttaa aagggtggta 1440  
 152 gttttccctaa aaatacttat tatgtaaaggg tcattagaca aatgtcttga agtagacatg 1500  
 153 gaatttatgaa atggttctt atcatttctc ttcccccattt ttggcatccctt ggcttgcctc 1560  
 154 cagtttttagt cccttagt tgcttctgtc agcaacggga acacctgtt agggggctct 1620  
 155 ttccctcatg tataacttcaa gtaagatcaa gaatctttt gtaaaattata gaaatttact 1680  
 156 atgtaaatgc ttgatggaaat tttttctgtc tagtgttagt tctgaaaggt gctttctcca 1740  
 157 ttatattaaa actaccatg caattaaaag gccttcgtgg cctcgag 1787  
 159 <210> SEQ ID NO: 4  
 160 <211> LENGTH: 261

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/574,194

DATE: 04/13/2006

TIME: 10:04:16

Input Set : A:\07917-259US1.txt

Output Set: N:\CRF4\04132006\J574194.raw

161 <212> TYPE: PRT  
 162 <213> ORGANISM: Homo sapiens  
 164 <400> SEQUENCE: 4  
 165 Met Val Val Val Ala Ala Ala Pro Asn Pro Ala Asp Gly Thr Pro Lys  
 166 1 5 10 15  
 167 Val Leu Leu Leu Ser Gly Gln Pro Ala Ser Ala Ala Gly Ala Pro Ala  
 168 20 25 30  
 169 Gly Gln Ala Leu Pro Leu Met Val Pro Ala Gln Arg Gly Ala Ser Pro  
 170 35 40 45  
 171 Glu Ala Ala Ser Gly Gly Leu Pro Gln Ala Arg Lys Arg Gln Arg Leu  
 172 50 55 60  
 173 Thr His Leu Ser Pro Glu Glu Lys Ala Leu Arg Arg Lys Leu Lys Asn  
 174 65 70 75 80  
 175 Arg Val Ala Ala Gln Thr Ala Arg Asp Arg Lys Lys Ala Arg Met Ser  
 176 85 90 95  
 177 Glu Leu Glu Gln Gln Val Val Asp Leu Glu Glu Asn Gln Lys Leu  
 178 100 105 110  
 179 Leu Leu Glu Asn Gln Leu Leu Arg Glu Lys Thr His Gly Leu Val Val  
 180 115 120 125  
 181 Glu Asn Gln Glu Leu Arg Gln Arg Leu Gly Met Asp Ala Leu Val Ala  
 182 130 135 140  
 183 Glu Glu Glu Ala Glu Ala Lys Gly Asn Glu Val Arg Pro Val Ala Gly  
 184 145 150 155 160  
 185 Ser Ala Glu Ser Ala Ala Leu Arg Leu Arg Ala Pro Leu Gln Gln Val  
 186 165 170 175  
 187 Gln Ala Gln Leu Ser Pro Leu Gln Asn Ile Ser Pro Trp Ile Leu Ala  
 188 180 185 190  
 189 Val Leu Thr Leu Gln Ile Gln Ser Leu Ile Ser Cys Trp Ala Phe Trp  
 190 195 200 205  
 191 Thr Thr Trp Thr Gln Ser Cys Ser Ser Asn Ala Leu Pro Gln Ser Leu  
 192 210 215 220  
 193 Pro Ala Trp Arg Ser Ser Gln Arg Ser Thr Gln Lys Asp Pro Val Pro  
 194 225 230 235 240  
 195 Tyr Gln Pro Pro Phe Leu Cys Gln Trp Gly Arg His Gln Pro Ser Trp  
 196 245 250 255  
 197 Lys Pro Leu Met Asn  
 198 260  
 200 <210> SEQ ID NO: 5  
 201 <211> LENGTH: 26  
 202 <212> TYPE: DNA  
 203 <213> ORGANISM: Homo sapiens  
 205 <400> SEQUENCE: 5  
 206 ctcagactac gtgcacctct gcagca 26  
 208 <210> SEQ ID NO: 6  
 209 <211> LENGTH: 210  
 210 <212> TYPE: PRT  
 211 <213> ORGANISM: Homo sapiens  
 213 <400> SEQUENCE: 6  
 214 Gly Ala Gly Pro Val Val Thr Pro Pro Glu His Leu Pro Met Asp Ser

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/574,194

DATE: 04/13/2006  
TIME: 10:04:16

Input Set : A:\07917-259US1.txt  
Output Set: N:\CRF4\04132006\J574194.raw

```

215 1           5           10          15
216 Gly Gly Ile Asp Ser Ser Asp Ser Glu Ser Asp Ile Leu Leu Gly Ile
217           20          25          30
218 Leu Asp Asn Leu Asp Pro Val Met Phe Phe Lys Cys Pro Ser Pro Glu
219           35          40          45
220 Pro Ala Ser Leu Glu Glu Leu Pro Glu Val Tyr Pro Glu Gly Pro Ser
221           50          55          60
222 Ser Leu Pro Ala Ser Leu Ser Leu Ser Val Gly Thr Ser Ser Ala Lys
223 65           70          75          80
224 Leu Glu Ala Ile Asn Glu Leu Ile Arg Phe Asp His Ile Tyr Thr Lys
225           85          90          95
226 Pro Leu Val Leu Glu Ile Pro Ser Glu Thr Glu Ser Gln Ala Asn Val
227           100         105         110
228 Val Val Lys Ile Glu Glu Ala Pro Leu Ser Pro Ser Glu Asn Asp His
229           115         120         125
230 Pro Glu Phe Ile Val Ser Val Lys Glu Glu Pro Val Glu Asp Asp Leu
231           130         135         140
232 Val Pro Glu Leu Gly Ile Ser Asn Leu Leu Ser Ser Ser His Cys Pro
233 145           150         155         160
234 Lys Pro Ser Ser Cys Leu Leu Asp Ala Tyr Ser Asp Cys Gly Tyr Gly
235           165         170         175
236 Gly Ser Leu Ser Pro Phe Ser Asp Met Ser Ser Leu Leu Gly Val Asn
237           180         185         190
238 His Ser Trp Glu Asp Thr Phe Ala Asn Glu Leu Phe Pro Gln Leu Ile
239           195         200         205
240 Ser Val
241           210
243 <210> SEQ ID NO: 7
244 <211> LENGTH: 95
245 <212> TYPE: PRT
246 <213> ORGANISM: Homo sapiens
248 <400> SEQUENCE: 7
249 Leu Arg Leu Arg Ala Pro Leu Gln Gln Val Gln Ala Gln Leu Ser Pro
250 1           5           10          15
251 Leu Gln Asn Ile Ser Pro Trp Ile Leu Ala Val Leu Thr Leu Gln Ile
252           20          25          30
253 Gln Ser Leu Ile Ser Cys Trp Ala Phe Trp Thr Thr Trp Thr Gln Ser
254           35          40          45
255 Cys Ser Ser Asn Ala Leu Pro Gln Ser Leu Pro Ala Trp Arg Ser Ser
256           50          55          60
257 Gln Arg Ser Thr Gln Lys Asp Pro Val Pro Tyr Gln Pro Pro Phe Leu
258 65           70          75          80
259 Cys Gln Trp Gly Arg His Gln Pro Ser Trp Lys Pro Leu Met Asn
260           85          90          95
262 <210> SEQ ID NO: 8
263 <211> LENGTH: 24
264 <212> TYPE: DNA
265 <213> ORGANISM: Artificial Sequence
267 <220> FEATURE:

```

RAW SEQUENCE LISTING ERROR SUMMARY                   DATE: 04/13/2006  
PATENT APPLICATION: US/10/574,194                   TIME: 10:04:17

Input Set : A:\07917-259US1.txt  
Output Set: N:\CRF4\04132006\J574194.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:20; Xaa Pos. 6

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/574,194

DATE: 04/13/2006

TIME: 10:04:17

Input Set : A:\07917-259US1.txt

Output Set: N:\CRF4\04132006\J574194.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No  
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0